



PTO/SB/08a (05-03)

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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Substitute Rule 19A/PTO

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Sheet

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1


Attorney Docket Number

100507-1

U. S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

| Examiner Initials* | Cite No. | Foreign Patent Document | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
|---|----------|---|--------------------------------|--|---|
| | | Country Code ³ Number ⁴ Kind Code ⁵ (if known) | | | |
|  | | EP 0104018 A2 | 03/28/1984 | Fisons PLC. | |
| | | EP 0017578 | 10/15/1980 | C M Industries Societe Anonyme Dite | |
| | | DE 2331138 A | 01/10/1974 | Fujisawa Pharmaceutical Co. Ltd. | |
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**Examiner
Signature**

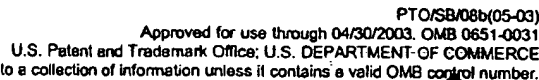
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C m p l t i f K n w n

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| Application Number | 10/051,776 |
| Filing Date | 01/16/2002 |
| First Named Inventor | Edward Pierson |
| Art Unit | 1614 |
| Examiner Name | |
| Attorney Docket Number | 100507-1 |

NON PATENT LITERATURE DOCUMENTS

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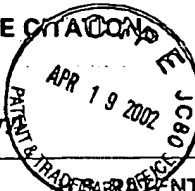
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PTO/SR/08 (2-92)

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| Form PTO-1449 | DOCKET NUMBER 100507 - 1 | US APPLICATION NUMBER 10/051,776 |
| INFORMATION DISCLOSURE CITATION BY APPLICANT (Use several sheets if necessary) | APPLICANT AstraZeneca AB | |
| | FILING DATE January 16, 2002 | GROUP ART UNIT Not Known |



| Examiner Initial | Document Number | Date | Name | Class | Subclass | Filing Date If Appropriate |
|-------------------|-----------------|-------------------|-----------------|-------|----------|----------------------------|
| <i>[initials]</i> | 3,862,143 | January 21, 1975 | Klutchko et al. | — | — | — |
| <i>[initials]</i> | 3,937,837 | February 10, 1976 | Klutchko et al. | — | — | — |
| <i>[initials]</i> | 4,189,498 | February 19, 1980 | Kabbe et al. | — | — | — |
| <i>[initials]</i> | 4,307,020 | December 22, 1981 | Kabbe et al. | — | — | — |
| <i>[initials]</i> | 5,171,865 | December 15, 1992 | Kurono et al. | — | — | — |

FOREIGN PATENT DOCUMENTS

| | Document Number | Public Date | Country | Class | Subclass | Translation | |
|-------------------|-----------------|--------------------|---------|-------|----------|-------------|----|
| | | | | | | Yes | No |
| <i>[initials]</i> | WO 9734883 | September 25, 1997 | PCT | — | — | — | — |
| | EP 0000377 | January 24, 1979 | EPO | — | — | — | XX |
| | WO 9827058 | June 25, 1998 | PCT | — | — | — | — |
| | WO 9827080 | June 25, 1998 | PCT | — | — | — | — |
| | WO 9914207 | March 25, 1999 | PCT | — | — | — | — |
| | WO 9914212 | March 25, 1999 | PCT | — | — | — | — |
| | WO 9914213 | March 25, 1999 | PCT | — | — | — | — |
| | WO 0012623 | March 9, 2000 | PCT | — | — | — | — |
| <i>[initials]</i> | WO 01/161127 | March 8, 2001 | PCT | — | — | XX | — |
| <i>[initials]</i> | JP 2001-261657 | Sept 26, 2001 | JP | — | — | XX | — |

The relevant sections have been translated

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

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| <i>[initials]</i> | Chemistry Letters 1997, Raposo et al, "The Effect of Chromenone Receptors on the Selectivity of the Reaction between Pyrrolidine and 5-Hydroxymethyl-2-(5H)-Furanone", pp 173-174. |
| <i>[initials]</i> | Journal of Medicinal Chemistry, Clitherow et al, "Evolution of a Novel Series of Antagonists", Volume 37, No 15, pp 2253-2257 |
| EXAMINER | DATE CONSIDERED |
| <i>[signature]</i> | 1/30/02 |

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Form PTO-1449

(Use several sheets if necessary)

US APPLICATION NUMBER
10/051,776

FILING DATE
January 16, 2002

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| GROUP ART UNIT |
| Not Known |

| Examiner Initial | Document Number | Date | Name | Class | Subclass | Filing Date If Appropriate |
|---------------------|--------------------|-------------------|-----------------|-------|----------|-------------------------------|
| <i>W</i> | 5,403,842 | April 4, 1995 | Leonardi et al. | — | — | — |
| <i>W</i> | 5,605,896 | February 25, 1997 | Leonardi et al. | — | — | — |
| <i>W</i> | 5,965,575 | October 12, 1999 | Peglion et al. | — | — | — |
| <i>W</i> | 5,968,954 | October 19, 1999 | Peglion et al. | — | — | — |
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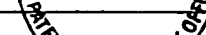
** This reference is being resubmitted in its entirety because when it was submitted in the original IDS dated April 15, 2002 part of a page was missing.

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PTO/SB/08 (2-92)

Patent and Trademark Office, U.S. Department of Commerce

FTO/SB/08 (2-92)

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| Form PTO-1449 |  | DOCKET NUMBER 100507 - 1 | US APPLICATION NUMBER 10/051,776 |
| INFORMATION DISCLOSURE CITATION BY APPLICANT | | APPLICANT AstraZeneca AB | |
| <i>(Use several sheets if necessary)</i> | | FILING DATE January 16, 2002 | GROUP ART UNIT 1614 |







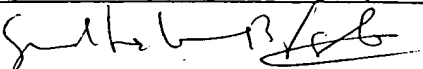
U.S. PATENT DOCUMENTS

| Examiner Initial | Document Number | Date | Name | Class | Subclass | Filing Date If Appropriate |
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FOREIGN PATENT DOCUMENTS

[illegible]

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

| | |
|--|--|
|  | Gaster, et al., "The Selective 5-HT _{1B} Receptor Inverse Agonist 1'-Methyl-5-[[2'-methyl-4'-(5-methyl-1,2,4-oxadiazol-3-yl)biphenyl-4-yl]carbonyl]-2,3,6,7-tetrahydrospiro[furo[2,3-f]indole-3,4'-piperidine] (SB-224289) Potently Blocks Terminal 5-HT Autoreceptor Function Both in Vitro and in Vivo" <i>J. Med. Chem.</i> , 41, 1218-1235 (1998) |
|  | Russell, et al., "3-[3-(Piperidin-1-yl)propyl]indoles as Highly Selective h5-HT _{1D} Receptor Agonists", <i>J. Med. Chem.</i> , 42, 4981-5001, (1999) |
|  | Barnes, et al., "A review of central 5-HT receptors and their function", <i>Neuropharmacology</i> 38, 1083-1152, (1999) |
|  | Massot, et al., "5-HT _{1B} Receptors: A Novel Target for Lithium", <i>Neuropsychopharmacology</i> Vol. 21, No. 4, 530-541 |
|  | Halazy, et al., "5-HT _{1B/1D} antagonists and depression", <i>Exp. Opin. Ther. Patents</i> , 7(4) 339352 (1997) |
|  | Cryan et al., "5-HT _{1A} and Beyond: The Role of Serotonin and its Receptors in Depression and the Antidepressant Response", <i>Hum. Psychopharmacol. Clin. Exp.</i> , 15, 113-135 (2000) |
| EXAMINER | DATE CONSIDERED |
|  | 4/30/04 |
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